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NEW AND LITTLE-KNOWN AMERICAN BEES

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The holotypes of the new forms described below will be found in The American Museum of Natural History.

Camptopoeum semirufum, new species

FEMALE.—Length about 8.5 mm., anterior wing 7; head black, with dark green eyes, and a large yellow area on face, including large supraclypeal mark (about twice as broad as long), large dog-ear marks, upper half of clypeus with a median lobe of yellow extending downward in middle line, and lateral marks extending as broad bands from level of upper end of dog-ear marks to level of middle of clypeus, separated from eyes by a black line; antennae rather short, scape punctured, and with a yellow spot at base in front; flagellum red beneath except at base, the last joint highly polished and red above; third antennal joint about as long as next two together; head broader than long, face shining, occiput and cheeks with scanty hair, but face and front practically bare; mandibles with base broadly pale yellow, the apex acute; blade of maxilla broad and dark; maxillary palpi long and slender; tongue linear, extending some distance beyond maxillae; thorax with hardly any hair; tubercles yellow, prominent; mesothroax shining, finely punctured, with a pair of suffused red spots posteriorly, notauli long and distinct; except as stated, the prothorax and mesothorax are black, as also the pleura and sides of metathorax, but the scutellum, postscutellum, and greater part of metathorax (excepting a black line down middle) are clear red; these red parts are dull, and the base of the metathorax is not modified; tegulae red, the anterior part with a yellow triangle, pointed in front; wings reddish, darker apically; stigma of moderate size, ferruginous, nervures brown; basal nervure falling a little short of nervulus; two cubital cells, the first a little longer than the second, which receives both recurrent nervures, the first a considerable distance from the base, the second about half as far from apex; marginal cell long, somewhat obliquely truncate at end, and appendiculate; femora black, with front and middle knees broadly yellow; front tibiae yellow except at apex and on inner side, where they are red; middle tibiae with a large yellow area on basal half, the rest dusky red suffused with black; hind tibiae very much longer, rusty black, with long curled shining hairs, and light pubescence on inner face; front and middle tarsi red, hind tarsi black; hind basitarsi fully as long as the other joints together; abdomen dull, moderately shining and distinctly punctured on first tergite, which is entirely clear red; second tergite red, with a black triangular mark in middle, and a black spot at each side; third tergite mainly black, the anterior corners and the extreme sides red; fourth red with two very large crescentic transverse black marks, nearly meeting in middle; fifth black, the caudal tuft pale grayish brown; venter mainly black, but red at sides.

Texas: Brazos County, June 22, 1921 (Robert K. Fletcher). This

extraordinary bee was sent by Mr. F. F. Bibby to Mrs. Beulah Blair, who brought it to my attention. Dr. H. J. Reinhard kindly permits the specimen to be placed in the American Museum. The face-markings and general appearance at once suggest *Protandrena*, and I supposed it to be a new species of that genus, until I noticed that there were only two cubital cells. The genus *Camptopoeum* is new to North America except that Friese has recorded *C. prinii* Holmberg from Costa Rica, a record so improbable that one suspects a mistake of some sort.

There is actually a good deal of resemblance to the Asiatic *C. rufiventre* Morawitz, which I have from Quetta, collected by Col. Nurse. But *C. rufiventre* is larger, with excessively large and broad facial foveae, these in *C. semirufum* being rather narrow, and shining. *C. ochraceum* Friese, from Argentina, is very different, with the antennae low down on the face, the clypeus short, and the orbits converging above. *C. maculatum* Spinola has a much smaller and more slender stigma. The various species at present assigned to *Camptopoeum* are conspicuously diverse, even after the removal of *Acamptopoeum* Cockerell, 1905 (*Liopoeum* Friese, 1906), and no doubt some segregates (genera or subgenera) will be recognized when the group is critically revised.

The known species of *Camptopoeum* Spinola are twelve from the Palaearctic region (Spain and Algeria to Turkestan and Siberia), thirteen from South America east of the Andes, and twelve from Chile. In the western United States the genus known as *Spinoliella* Ashmead has many species. Unfortunately Ashmead designated as the type of *Spinoliella* the Chilean *Camptopoeum nomadoides* Spinola, an insect with black head and thorax, the abdomen red with white or very pale marks. Adequate comparisons have not been made, but it is improbable that *C. nomadoides* is congeneric with our North American insects.

Andrena hemileuca Viereck

This species, very imperfectly described by Viereck, has been a source of difficulty (see 1914, Proc. U. S. National Museum, XLVIII, p. 30). At the Citrus Experiment Station I found a male determined by Viereck, from flowers of *Horkelia*, Sequoia Lake, California. I noted: face very broad; long black hair at sides of face and on scape; clypeus shining; mandibles long, red at tip; cheeks very broad, but not angulate (they should be angulate, according to Viereck's table, 1904, Can. Entom., XXXVI, p. 193); hair of thorax above long and tinged with ochreous; femora with much long white hair; wings dusky; stigma large, dark reddish; second cubital cell very narrow; basal nervure falling far short

of nervulus; abdomen shining, first two tergites with long white hair; hair at apex dark brown. This is not at all the same species as that from Colorado, described in the place cited (1914). The type of *A. hemileuca* is a female from Washington State.

Andrena saccata Viereck

This is another species very imperfectly described by Viereck. I found a cotype, female, at the Citrus Experiment Station. Aspect of *A. carlini;* hair of head and pleura all black, of thorax above pale ochreous, becoming white in front; clypeus shining and distinctly punctured, without a ridge, region before apex with few punctures; process of labrum rather small, truncate; flagellum dark reddish, third joint about as long as next two together; metathorax with black hair; wings strongly dusky; stigma large, dull red; second cubital cell very broad, receiving recurrent nervure beyond middle; legs reddish; abdomen with erect black hair, abundant and conspicuous on first two tergites.

Andrena porterae Cockerell

Timberlake takes this in California, on *Ribes.*

Andrena mackieae, new species

FEMALE.—Length nearly 10 mm., anterior wing 7.4; black, including antennae, legs and the shining tegulae; hair of thorax above, and tubercles, ferruginous, rather short and stiff; face, cheeks and pleura with dull white hair, on vertex it is rusty black, but light on occiput; facial foveae, seen from above, chocolate color, not very broad, narrowly separated from eye; mandibles ordinary, the inner tooth small; malar space linear; process of labrum highly polished, with sloping sides, the end thickened; clypeus dull, with scattered punctures, and a median ridge, which in one view looks like a groove; third antennal joint as long as next two together; mesothorax dull, except the posterior disc, which is highly polished, as also is the scutellum; metathorax entirely dull and granular, the large triangular basal area poorly defined; wings somewhat dusky, the outer margin distinctly darkened; stigma large, dark reddish brown; nervures very dark; basal nervure meeting nervulus; second cubital cell small, square, or a little higher than broad, receiving recurrent nervure a little beyond the middle, about as far from second intercubitus as second recurrent from third; spurs pale reddish; legs with pale hair, hind knee-tuft and hair on inner side of hind basitarsi very dark gray; hind basitarsi broad and stout; scopa of hind tibiae compact, dark above at base, the hairs finely plumose; abdomen shining, duller at base, the surface minutely tessellate and with scattered excessively fine punctures, not visible under a lens; second tergite in middle with the apical depression about half as long as the raised part; tergites 2 to 4 with narrow conspicuous pure white hair bands, broadly interrupted on second, narrowly on third; apical tuft dark brownish gray, with white hair at sides; venter with white hair.

California: Live Oak Canyon, near Redlands, March 30, 1936 (Alice Mackie). In my manuscript table this runs to *A. brevipalpis* Cockerell, but differs by the white hair bands, the large dark stigma, and the black tegulae. From *A. trifasciata* Timberlake and Cockerell, it is known by the much narrower abdominal bands, the highly polished scutellum, and other characters. By the polished scutellum and hind part of mesothorax it is like *A. medionitens* Cockerell, but the abdominal bands and caudal tuft are quit different. I sent particulars of this species to Mr. R. H. Timberlake, but he writes that he has not found it. The pollen collected consists of spherical light yellow grains, not unlike that of *Artemisia.*

Andrena harveyi Viereck

At the Citrus Experiment Station I examined a cotype from Corvallis, Oregon. Medium size, dull black, the face and abdomen somewhat shining; clypeus shining, closely punctured, strongly ridged; facial foveae broad and black; tegulae peculiar, black in front, the hind part red and produced; stigma dark red; second cubital cell higher than broad, receiving recurrent nervure far beyond middle; margins of tergites reddish; metathorax covered with long dull whitish hairs, including basal area.

A specimen determined by Viereck as *A. asmi* Viereck has the margins of tergites not reddish, but is conspecific with *A. harveyi*, as Timberlake had already determined. However, it is from Corvallis, and the type locality of *A. asmi* is Pullman.

Andrena subaustralis Cockerell

Viereck had this as a subspecies of *A. erythrogastra* (Ashmead), the genitalia being the same. It has an extraordinary distribution, from California to Washington, D. C., where it was collected by Timberlake. I could not see any difference between specimens from the two coasts.

Andrena lupinorum Cockerell

Nebraska: Harrison, July 2, 1936, female (John Player). New to Nebraska.

Agapostemon coloradensis Crawford
Agapostemon fasciatus Crawford

The names proposed by Crawford stand, and there is no valid basis for substituting those of Vachal, as given by Miss Sandhouse in 1936, Jour. Washington Acad. Sci., XXVI, pp. 77 and 78. I think *A. fasciatus* is a valid species; I have cotypes of both sexes from Crawford.

Halictus ovaliceps Cockerell

Colorado: Ouray, approx. 8500 ft., July 11–14, 1919 (Pearce Baily, Jr.). New to Colorado. The altitudinal range is remarkable, as Hicks found it at Pasadena, California (1936, Canad. Entom., p. 47).

Melissodes habilis Cockerell

Colorado: Florissant, July 11, 1936 (Cockerell). Male at white thistle (*Cirsium*) flowers. The hitherto unique type (in the American Museum) was taken by Wickham at Colorado Springs. The new specimen differs in a few details: the clypeal yellow is pale lemon-color, eyes black, hair of head and thorax above fulvescent, third cubital cell about as broad above as second; light band on fourth tergite almost obsolete. It remains to be seen whether these characters are constant in Florissant specimens, which come from a higher altitude and considerably cooler climate.

Sphecodes arvensiformis Cockerell

Colorado: South Fork of Rio Grande, June 17, approx. 8200 ft., one female (F. E. Lutz) at approx. 8500 ft., one female at light (F. E. Lutz). New to Colorado.